

REMARKS

The examiner rejected claims 3-17 under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The examiner stated that applicants are claiming a genus of sequences encoding OMP-DC proteins with no correlation between the structure of the OMP-DC sequence and its function. The examiner stated that without a correlation between structure and function, the structure of other member of the genus which could be obtained by genetic engineering is unknown to applicant.

Applicants claim an orotidine-5'-phosphate decarboxylase gene having the sequence SEQ ID NO: 1 or its homologs which have at least 80% homology, very particularly preferably of at least 90% homology with the sequence SEQ ID NO: 1. Such homologs are disclosed in the specification on page 3 (lines 26 to 44). Page 4 (lines 24 to 29) disclose additional organisms such as members of the family Metschnikowiasceae such as the genera *Eremothecium*, *Ashbya* or *Nematospora* from which the orotidine-5'-phosphate-decarboxylase gene can be isolated. There is clear teaching in the specification about the homologs and what is meant by the term "homologs."

Satisfactory disclosure of a "representative number" depends on whether one of skill in the art would recognize that the applicant was in possession of the necessary common attributes or features of the elements possessed by the members of the genus in view of the species disclosed. MPEP § 2163.

Applicants believe deriving the homologs is predictable. One of ordinary skill in the art would know of many *ura3* sequences from many sources such as from http://www.biochem.ucl.ac.uk/bsm/pdbsum/1dv7/align_A.html or http://www.stdgen.lanl.gov/cgi-bin/gene_id_search.cgi?dbname=sage&gene_id=SAG1047. With this knowledge the skilled artisan easily can compare the sequences with standard programs. The different regions of a protein can be identified and modified by standard method which would retain the protein activity. Therefore, contrary to what the examiner stated one does not need to practice trial and error experimentation to make changes randomly in the gene sequence and screen for sequences that maintain biological activity.

The examiner also rejected claim 9 under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants follows the examiner's suggestion to redraft the claim to delete "organisms" and substitute "the microorganisms."

For the reasons expressed above, it is urged that the prior art references cited by the examiner either singly or in combination fail to anticipate or suggest the present invention as defined by the amended claims. Accordingly, a *prima facie* case of obviousness has not been established by the examiner, and the rejection under 35 USC § 103 should be withdrawn.

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any excess fees to such account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'D. Kim', written over the firm name.

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